

IN THE CLAIMS

1. (Canceled)

2. (Currently Amended) A gateway server for performing the method of ~~claim 1~~ claim 7, said interworking server comprising said gateway server.

3. (Original) A gateway server as recited in claim 2 wherein said interworking server further includes a media switching fabric for switching media terminated at the interworking server.

4. (Canceled)

5. (Currently Amended) A method of interworking as recited in ~~claim 1~~ claim 7, wherein said set-up request receiving step further comprises the step of translating an SIP address to an H.323 address.

6. (Original) A method of interworking as recited in claim 5 wherein said translation step comprises the preliminary step of receiving SIP address data from an SIP server for storage in said memory.

7. (Currently Amended) ~~A method of interworking as recited in claim 4,~~ A method of interworking via a state machine for use in interworking between an H.323 based network and a session initiation protocol (SIP) based network, the method comprising:

receiving, at an interworking server that includes a data processor for call processing and a memory for storing said state machine, a set-up request from an H.323 endpoint,

transmitting a corresponding invite message to an addressed SIP endpoint,

receiving a ringing response message from the SIP endpoint,

transmitting a corresponding alert message to the H.323 endpoint,

receiving an OK message from the SIP endpoint, transmitting a connect message to the H.323 endpoint,

negotiating said connect message utilizing an H.245 protocol,
transmitting an ACK message to the SIP endpoint,
communicating between the H.323 endpoint and the SIP endpoint utilizing realtime
transport protocol (RTP),

establishing a state machine table in said memory, wherein for a state of said state
machine, a message associated with said state is categorized as one of:

- (a) a triggering message for triggering a predetermined action,
- (b) a non-triggering message, and
- (c) an unexpected message in said state; and

for an idle state, defining:

- (a) registration messages as triggering an addition of registration information,
- (b) a Q.931 message as non-triggering, and
- (c) an H.245 message as an error message.

8. through 14. (Canceled)

15. (Currently Amended) A method as recited in ~~claim 14~~ claim 19, further comprising the step of switching any media terminated at said interworking gateway to an addressed endpoint.

16. (Currently Amended) An interworking gateway server for performing the method of ~~claim 14~~ claim 19, said interworking gateway server comprising said state machine, said translation table and a data processor.

17. (Original) An interworking gateway server as recited in claim 16 further comprising a media switching fabric for switching media terminated at said interworking gateway server.

18. (Currently Amended) A method of interworking as recited in ~~claim 14~~ claim 19, wherein said first protocol based network is an H.323 protocol based network and said second protocol based network is a SIP protocol based network.

19. (Currently Amended) ~~A method of interworking as recited in claim 14~~ A method of interworking for use in interworking between a first protocol based network and a second protocol based network, the method comprising:

receiving, at an interworking gateway server serving said first and second protocol based networks, a request from an endpoint in the first or second protocol based networks,

establishing a state machine in memory wherein, for each state of said state machine, a message associated with that state is categorized as one of:

(a) a triggering message for a predetermined action,

(b) a non-triggering message, and

(c) an error message,

establishing a translation table in said memory wherein an address formatted in said first protocol has a one-for-one correspondence with an address formatted in said second protocol,

processing said request in accordance with said translation table and said state machine,
and

permitting communication between said first and second endpoints utilizing a reliable transport protocol;

wherein for an idle state:

(a) a registration message is a triggering message for an action of adding registration information,

(b) a Q.931 message is non-triggering, and

(c) an H.245 message is an error message.

20. (Original) A method as recited in claim 19 wherein for said idle state, the next state comprises a WaitForSetup state.